

REMARKS

The non-final Office Action mailed December 17, 2003 (Paper No. 11) has been carefully considered. In response, Applicant requests entry of the foregoing amendments and consideration of the following remarks. Independent claims 1 and 16 have been amended. Claim 1 has been amended to correct an informality. Specifically, "and" has been added between the first and last clauses of the claim.

Pending claims 1 - 17, 19 - 22, 24, and 25 are allowable over the cited references for at least the reason that the cited references do not suggest data packet routing independent of the state of a routing table in a node along the data route. These claims are further allowable for at least the separate and independent reason that the cited references do not suggest data packet routing by communicating the combination of an egress port, a current hop count, and a total hop count in a data packet header.

I. Response to 35 U.S.C. §103 Rejections – Claims 1 - 17 and 19 - 22

A. Statement of the Rejection

Claims 1 - 17 and 19 - 22 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Galles *et al.* (U.S. Patent No. 5,721,819 ("*Galles*")) in view of "Data and Computer Communications" to Stallings ("*Stallings*.")

Claims 24-25 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Galles in view of Stallings and further in view of "A Queuing Model for Wormhole Routing with Timeout" to Hu *et al.* ("*Hu*.")

B. General Discussion of the Rejections

Applicant respectfully traverses the rejection of claims 1 - 17 and 19 - 22 for failure to establish a *prima facie* case of obviousness.

Applicant respectfully traverses the rejection of claims 24 and 25 for failure to establish a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness based on a combination of the content of various references, there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant. *In re Raynes*, 7 F.3d 1037, 1039, 28 USPQ2d 1630, 1631 (Fed. Cir. 1993); *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). As stated in MPEP 2143 - Basic Requirements of a *Prima Facie* Case of Obviousness,

[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicant will show below that the Office has failed to meet the first and last of the three conditions for establishing a *prima facie* case of obviousness. Stated another way, the Office Action rejection fails to propose a combination of references that when combined teach or suggest all claim limitations. In addition, the Office Action rejection fails to recite some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings to reach Applicant's claimed combination.

When applying 35 U.S.C. §103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be **considered as a whole**;
- (B) The references must be considered as a whole and must **suggest the desirability** and thus the obviousness of making the combination;
- (C) The references must be **viewed without the benefit of impermissible hindsight vision afforded by the claimed invention**; and
- (D) **Reasonable expectation of success** is the standard with which obviousness is determined.

Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986). (MPEP §2141)

The Office has failed to establish a *prima facie* case of obviousness with regard to Applicant's claimed invention for at least the reasons that the Office has failed to adhere to tenets (A), (B), and (C), as noted above.

1. The Statement of the Rejection Fails to Consider the Claimed Invention as a Whole

a. The Rejection Fails to Allege Where Each Limitation is Found in the Cited Art

Applicant respectfully traverses the rejection of claims 1 - 17 and 19 - 22 for at least the reason that the statement of the rejection fails to allege where each element/limitation of each claim can be found in the cited art.

Regarding independent claim 1, the statement of the rejection fails to address at least one limitation recited in the claim. Applicant's claim 1 recites "wherein each subsequent intermediate node includes routing logic configured to route a data packet associated with the data packet header in response to the egress port independent of the state of a routing table associated with the node." The statement of the rejection is silent concerning this limitation. Consequently, the statement of the rejection is improper for failing to allege that each element/limitation of claim 1 is disclosed, taught, or suggested in the cited art. Thus, the rejection cannot establish a *prima facie* case of obviousness regarding Applicant's claim 1. Accordingly, the rejection of claim 1 should be corrected or withdrawn.

Concerning independent claim 6, the statement of the rejection fails to address at least one limitation recited in the claim. Applicant's claim 6 recites "wherein each subsequent intermediate node includes routing means configured to route a data packet associated with the data packet header in response to the next subsequent node's egress port independent of the state of a routing table associated with the node." The statement of the rejection is silent concerning this limitation. Consequently, the statement of the rejection is improper for failing to allege that each element/limitation of claim 6 is disclosed, taught, or suggested in the cited art. Thus, the rejection cannot establish a *prima facie* case of obviousness regarding Applicant's claim 6. Accordingly, the rejection of claim 6 should be corrected or withdrawn.

Regarding independent claim 11, the statement of the rejection fails to address at least one limitation recited in the claim. Applicant's claim 11 recites "routing the data packet along the data route in response to the egress port independent of the state of a routing table associated with the node." The statement of the rejection is silent concerning this limitation. Consequently, the statement of the rejection is improper for failing to allege that each element/limitation of claim 11 is disclosed, taught, or

suggested in the cited art. Thus, the rejection cannot establish a *prima facie* case of obviousness regarding Applicant's claim 11. Accordingly, the rejection of claim 11 should be corrected or withdrawn.

Concerning independent claim 16, the statement of the rejection fails to address at least one limitation recited in the claim. Applicant's claim 16 recites "routing the data packet along the preferred data route in accordance with the egress port indicator added to the header by the previous node along the data route and the current hop count, wherein routing is accomplished independent of the state of a routing table in a node along the data route." The statement of the rejection is silent concerning this limitation. Consequently, the statement of the rejection is improper for failing to allege that each element/limitation of claim 16 is disclosed, taught, or suggested in the cited art. Thus, the rejection cannot establish a *prima facie* case of obviousness regarding Applicant's claim 16. Accordingly, the rejection of claim 16 should be corrected or withdrawn.

Because the statement of the rejection has failed to establish a *prima facie* case of obviousness regarding Applicant's independent claims 1, 6, 11, and 16, the rejection has failed to establish a *prima facie* case of obviousness concerning Applicant's dependent claims 2-5, 7-10, 12-15, 17, and 19-22. Thus, the rejection of claims 2-5, 7-10, 12-15, 17, and 19-22, should be withdrawn as well.

b. The Cited Art Fails to Disclose, Teach, or Suggest Each Claim Limitation

Applicant's independent claims 1, 6, 11, and 16 recite claim limitations that are not disclosed, taught, or suggested by the cited references. Accordingly, the proposed combination fails to establish a *prima facie* case for obviousness for failure to teach or suggest all the claim limitations.

(1). Claims 1-5

Applicant notes that the claimed invention, as recited in Applicant's independent claim 1 comprises "a data packet header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route." The Office, on page 5, admits that *Galles* does not clearly teach a data packet header that contains an egress port, a current hop count, and a total number of hops in the data route. In an effort to remedy the failure of *Galles* to disclose this element, the Office alleges that one skilled

in the art would be motivated to create such a header in view of *Stallings*. Applicant disagrees for at least the reason that *Stallings* does not disclose, teach, or suggest placing a current hop count in a data packet header. Thus, the proposed combination fails to include each element of Applicant's claimed data packet header.

Because *Galles* fails to disclose a data packet header with these limitations and *Stallings* fails to remedy the failure of *Galles* to disclose, teach, or suggest Applicant's claimed data packet header, the proposed combination of *Galles* and *Stallings* fails to render Applicant's claim 1 obvious. For at least this additional reason the rejection of claims 1-5 should be withdrawn.

Applicant further notes that the claimed invention, as recited in Applicant's independent claim 1 comprises the limitation "... wherein each subsequent intermediate node includes routing logic configured to route a data packet associated with the data packet header in response to the egress port independent of the state of a routing table associated with the node." The statement of the rejection does not allege that this limitation is found in the cited art. Furthermore, the proposed combination of *Galles* and *Stallings* fails to disclose, teach, or suggest this limitation. For at least this separate and additional reason, Applicant's claim 1 is not rendered obvious and the rejection of claims 1-5 should be withdrawn.

(2). Claims 6-10

Applicant notes that the claimed invention, as recited in Applicant's independent claim 6 comprises "a data packet header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route." This is the same limitation recited in Applicant's claim 1, which, as shown above is not rendered obvious by the proposed combination of *Galles* and *Stallings*. For at least this additional reason, the rejection of claims 6-10 should be withdrawn.

Applicant further notes that the claimed invention, as recited in Applicant's independent claim 6 comprises the limitation "... wherein each subsequent intermediate node includes routing means configured to route a data packet associated with the data packet header in response to the next subsequent node's egress port independent of the state of a routing table associated with the node." The statement of the rejection does not allege that this limitation is found in the cited art. Furthermore, the proposed combination of *Galles* and *Stallings* fails to disclose, teach, or suggest this limitation.

For at least this separate and additional reason, Applicant's claim 6 is not rendered obvious and the rejection of claims 6-10 should be withdrawn.

(3). Claims 11-15

Applicant notes that the claimed invention, as recited in Applicant's independent claim 11 comprises "a header associated with the data packet, the header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route." As shown above, regarding Applicant's independent claims 1 and 6, the proposed combination of *Galles* and *Stallings* does not disclose, teach, or suggest a header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route. Thus, Applicant's claims 11-15 are not rendered obvious by the proposed combination of *Galles* and *Stallings*. For at least this additional reason, the rejection of claims 11-15 should be withdrawn.

Applicant further notes that the claimed invention, as recited in Applicant's independent claim 11 comprises the limitation "routing the data packet along the data route in response to the egress port independent of the state of a routing table associated with the node." The statement of the rejection does not allege that this limitation is found in the cited art. Furthermore, the proposed combination of *Galles* and *Stallings* fails to disclose, teach, or suggest this limitation. For at least this separate and additional reason, Applicant's claim 11 is not rendered obvious and the rejection of claims 11-15 should be withdrawn.

(4). Claims 16, 17, and 19-22

Applicant notes that the claimed invention, as recited in Applicant's independent claim 16 comprises "generating a data packet having a header comprising an egress port indicator, a current hop count, and a total hop count, the data packet responsive to the preferred data route." As shown above, regarding Applicant's independent claims 1 and 6, the proposed combination of *Galles* and *Stallings* does not disclose, teach, or suggest a header comprising an egress port of a next subsequent node, a current hop count, and a total hop count, the data packet responsive to the preferred data route. Thus, Applicant's claims 16, 17, and 19-22 are not rendered obvious by the proposed combination of *Galles* and *Stallings*. For at least this additional reason, the rejection of claims 16, 17, and 19-22 should be withdrawn.

Applicant further notes that the claimed invention, as recited in Applicant's independent claim 16 comprises the limitation "routing the data packet along the preferred data route in accordance with the egress port indicator added to the header by the previous node along the data route and the current hop count, wherein routing is accomplished independent of the state of a routing table in a node along the data route." The statement of the rejection does not allege that this limitation is found in the cited art. Furthermore, the proposed combination of *Galles* and *Stallings* fails to disclose, teach, or suggest this limitation. For at least this separate and additional reason, Applicant's claim 16 is not rendered obvious and the rejection of claims 16, 17, and 19-22 should be withdrawn.

2. The Statement of the Rejection Fails to Consider the References as a Whole and Fails to Cite a Proper Suggestion or Motivation to Create the Claimed Invention

Applicant respectfully traverses the rejection of claims 1 - 17 and 19 - 22 for at least the reason that the statement of the rejection fails to recite a proper suggestion or motivation to combine the references to create the claimed combination.

The initial burden is upon the Patent Office to establish a *prima facie* case of obviousness. Such a *prima facie* showing includes an identification of a proper suggestion or motivation within the prior art to make the combination. Thus, as a separate and independent basis for the patentability of claims 1 - 17 and 19 - 22, Applicant respectfully submits that the Office Action has failed to identify a proper motivation or suggestion to combine the *Galles* and *Stallings* references.

In this regard, Applicant cites the Federal Circuit decision of *In re Sang-Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed.Cir.2002). As clearly articulated in this opinion, general conclusions of obviousness will not be upheld, without clear evidentiary facts to support them. Office Action rejections "cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies." The *Sang-Su Lee* opinion further states that Office Actions "must make findings of facts, and present [their] reasoning in sufficient detail that [a] court may conduct meaningful review of the agency action.

It is well-settled law that in order to properly support an obviousness rejection under 35 U.S.C. § 103, there must have been some teaching in the prior art to suggest to

one skilled in the art that the claimed invention would have been obvious. *W. L. Gore & Associates, Inc. v. Garlock Thomas, Inc.*, 721 F.2d 1540, 1551 (Fed.Cir.1983). More significantly,

“The consistent criteria for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this [invention] should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art. ... Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure... In determining whether such a suggestion can fairly be gleaned from the prior art, the full field of the invention must be considered; for the person of ordinary skill in the art is charged with knowledge of the entire body of technological literature, including that which might lead away from the claimed invention.”

(*Emphasis added.*) *In re Dow Chemical Company*, 837 F.2d 469, 473 (Fed.Cir.1988).

In this regard, Applicants note that there must not only be a suggestion to combine the functional or operational aspects of the combined references, but that the Federal Circuit also requires the prior art to suggest both the combination of elements and the structure resulting from the combination. *Stiftung v. Renishaw PLC*, 945 Fed.2d 1173 (Fed.Cir.1991). Therefore, in order to sustain an obviousness rejection based upon a combination of any two or more prior art references, the prior art must properly suggest the desirability of combining the particular elements to create a data communications system and a method for communicating packets in a network as claimed by the Applicant.

“Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.” *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). “Even when the level of skill in the art is high, the [Office Action] must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the [Office Action] must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.” *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed.Cir.1998).

“A showing of a suggestion, teaching, or motivation to combine the prior art references is an essential component of an obviousness holding.” *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-1125, 56 USPQ2d 1456, 1459

(Fed. Cir. 2000)) (*quoting C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed.Cir.1998)); The Federal Circuit has made it clear “that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed.Cir. 1999). Thus, there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant.” *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed.Cir.1998).

In the present application, the Office Action has clearly failed to satisfy this evidentiary standard, which the Federal Circuit has held is mandated by the Administrative Procedures Act (*See, In re Sang-Su Lee*). For example, in responding to Applicant’s earlier arguments for patentability, the Office Action (page 4) alleges that *Stallings* appears to show a total hop count as well as routing information in a packet header such as an IP header. Applicant notes that *Stallings* does not suggest the inclusion of a current hop count in a data packet header. Applicant further notes that *Galles*, as admitted by the Office, does not suggest the inclusion of a current hop count in a data packet header. The Office Action concludes without any analysis, that *Stallings* provides the support and motivation for why someone skilled in the art would place all three elements (*i.e.*, an egress port, a current hop count, and a total hop count) in a packet header. Applicant notes the deficiency of this argument to particularly point out where the motivation for combining an egress port, a current hop count, and a total hop count in a data packet header is found in the prior art.

To illustrate this notion, one cannot claim that the existence of a unicorn should be obvious from taking a trip to the zoo and seeing a horse and a white rhinoceros in adjacent cages. It takes a spark of inventiveness to look at a horse and then look at a white rhinoceros and then conceive the idea of a white horse with a horn.

The rationale and justification adopted by the Office in combining *Galles* and *Stallings* to reject Applicant’s claims, if adopted or embraced by the Federal Circuit, would effectively eviscerate the entire body of case law surrounding the requirements of 35 U.S.C. § 103. In this regard, it is axiomatic in the patent laws that every patent claim is merely a novel combination of known elements. Simply stated, using the rationale of the rejection, virtually every patent claim submitted to the Patent Office could be rejected, since the individual elements could be located in the prior art. After locating

the individual elements in isolation, rejections could be formed merely by noting some analogy between the technological areas of the references themselves. The conclusory nature of the claim rejections reflects a fundamental error in the rejections, and on this basis alone, the substantive rejections set forth in the Office Action should be withdrawn.

Galles appears to teach using a router table to populate vector fields in a vector packet. *Galles* (see FIG. 13) specifically shows that the vector fields are not part of a packet header. The vector fields are distinct and inserted between the header and data fields in the vector packet. Contrary to the teachings of *Galles*, *Stallings*, on the other hand, appears to suggest placing a total hop count and routing information in a packet header. Thus, one skilled in the art would not be motivated to combine *Galles*' vectors with *Stallings* packet header because *Galles* specifically keeps the vectors separate from the vector packet header.

In rejecting Applicant's independent claims, page 5 of the Office Action states that *Galles* does not clearly teach a data packet header that contains the elements mentioned previously (*i.e.*, an egress port, a current hop count, and a total hop count). The Office Action then concludes, without reasoned analysis, "[i]t would have been obvious to someone skilled in the art prior to applicant's invention to use a packet header that contains at least an egress port of a next subsequent node, a current hop count, and a total hop count." The Office Action later states "[o]ne motivation for placing this information in a header is so the router can easily locate information within a defined data packet structure." This is the total of the argument and reasoning set forth by the Office Action in reaching the conclusion that one would have been led to combine the contradictory teachings of *Galles* with *Stallings*. Applicant respectfully submits that this falls far short of the legal requirement articulated by the Federal Circuit in *In re Sung-Su Lee*. For this reason alone, the rejections of the Office Action should be withdrawn.

Furthermore, the mere assertion that *Galles* discloses vectors that can be used to derive a current hop count and a total hop count, and the assertion in the Office Action that *Stallings* discloses a header with a hop count and routing information, is insufficient to constitute a legally proper motivation or suggestion to combine selective teachings of *Galles* and *Stallings*. To better illustrate this assertion, Applicant cites *Continental Can Co., USA, Inc. v. Monsanto Co.*, 948 F.2d 1264 (Fed. Cir. 1991). In that case, the claimed invention was directed to a ribbed bottom structure for reinforcing a plastic container. The patent in suit claimed that each container rib was hollow. The prior art

consisted of several patents directed to ribbed configurations comprising the support structure of plastic container bottoms. The primary reference was a Marcus patent, which disclosed a plastic container having a ribbed bottom, wherein the ribs were solid. A Pentaloid patent was a secondary reference which, when inverted, closely resembled the claimed invention. The Federal Circuit, however, quickly dismissed this simple modification as constituting an obvious change by stating, “[a]lthough a prior art device could have been turned upside down, that did not make the modification obvious unless the prior art fairly suggested the desirability of turning the device upside down.”

Continental Can at 1270.

Several prior art references in the *Continental Can* case disclosed plastic containers having ribbed bottoms, wherein the ribs were hollow. In rejecting the notion that elements from prior art references can be mixed and matched randomly in an effort to render obvious the claimed invention, the Federal Circuit stated, “[w]hen prior art references require selective combination ... to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself.” *Continental Can* at 1271. “The criterion of 35 U.S.C. § 103 is not whether the differences from the prior art are simple enhancements, but whether it would have been obvious to make the claimed structure. *Continental Can* at 1273.

“When the patented invention is made by combining known components to achieve a new system, the prior art must provide a suggestion or motivation to make the combination.” *Heidelberger Druckmaschinen v. Hantscho Commercial Products, Inc.*, 21 F.3d 1068, 1072, 30 U.S.P.Q. 2d 1377 (Fed. Cir. 1994). In this regard, “obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so.” *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577; 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

Applicant respectfully submits that it is not the Applicant’s burden to prove that no teaching, suggestion, or motivation exists within the prior art that would lead one of ordinary skill to make the particular combination of elements, as claimed. Instead, the initial burden is upon the Patent Office to establish a *prima facie* case of obviousness. Such a *prima facie* showing includes an identification of a proper suggestion or motivation within the prior art to make the combination. Nevertheless, Applicant has

closely reviewed the references applied by the Office Action and is unable to identify any suggestion, motivation, or other teaching contained within these references or elsewhere in the prior art that would lead one of ordinary skill in the art (without the benefit of hindsight after having reviewed Applicant's invention) to make the combination (both structure and function) as set forth in the claims of the present application. Therefore, if the Examiner intends to maintain the obviousness rejections, based upon a combination of prior art references, Applicant respectfully requests that the Examiner identifies the specific teachings within the prior art that would suggest the desirability or motivation for the particular combination of elements as claimed.

A claim cannot be deemed obvious in view of a reference or proposed combination of references if the references "teach away" from the claim. *See In re Gurley*, 2 F.3d 551, 31 USPQ2d 1130, 1131 (Fed Cir. 1994) ("A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. Additionally, "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the reference are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (see CPA 1959)." MPEP 2143.01.

Galles, as noted above, specifically teaches a series of vector fields situated between a header and a data field in a vector data packet. The vector fields are responsive to routing tables stored within each node in the network. *Galles* appears to identify a data route via data vectors stored in a routing table associated with each respective node. The network routers described in *Galles* sequentially modify the position of data vector values to identify both an ingress and an egress port for directing data transfers.

Furthermore, each node in the network apparently disclosed in *Galles* receives and processes a plurality of data vectors before a determination can be made whether the present node is an intermediate node or the destination node.

In contrast, the claimed invention can make an immediate determination whether the received data packet is intended for processing by the present node. In addition, the data route in the claimed invention is communicated to each subsequent node in the data route via a data packet header comprising a next subsequent node's egress port, a current

hop count, and a total number of hops in the data route. Each subsequent intermediate node includes routing logic configured to route a data packet associated with the data packet header in response to the egress port independent of the state of a routing table associated with the node. Thus, the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified. For at least this additional reason, Applicant's claims 1 - 17 and 19 - 22 are not rendered obvious by the proposed combination of *Galles* and *Stallings* and the rejections should be withdrawn.

3. The Statement of the Rejection Uses Impermissible Hindsight

In this regard, the statement of the rejection alleges that a current hop count could be easily derived from the positions of the vector fields in FIG. 17 of *Galles*. Applicant submits that but for Applicant's disclosure and claimed invention nothing in *Galles* and *Stallings* suggests such a derivation. Accordingly, the Office's allegation that *Galles'* vector fields could be used to derive a current hop count could only have been formulated using impermissible hindsight reasoning (*i.e.*, using an Applicant's claim as a road map to find elements of Applicant's claimed combinations in the prior art). Thus, for at least this additional reason, Applicant's claims 1 - 17 and 19 - 22 are not rendered obvious by the proposed combination of *Galles* and *Stallings* and the rejections should be withdrawn.

II. Response to 35 U.S.C. §103 Rejections – Claims 24 and 25

A. Statement of the Rejection

Claims 24 and 25 presently stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Galles* and *Stallings* in further view of "A Queuing Model for Wormhole Routing with Timeout" to Hu *et al.*, hereafter *Hu*.

B. Discussion of the Rejection

Applicant respectfully traverses the rejection of claims 24 and 25 for at least the reason that *Hu* fails to remedy the failure of the combination of *Galles* and *Stallings* to disclose, teach, or suggest each element and/or method step in the claims. The Office's rejection alleges that it would have been obvious to a skilled artisan, given the teachings of *Hu*, to use a timeout value in general to avoid deadlock problems in a multiprocessor

network. As further support, the rejection alleges that *Hu* discloses using a timeout to avoid deadlock. (Office Action, p. 8)

However, Applicant notes that the statement of the rejection of Applicant's independent claim 16 fails to meet the burden of establishing a *prima facie* case of obviousness. Thus, even if *Hu* teaches using a timeout value to avoid deadlock problems in a network, the combination of *Galles*, *Stallings*, and *Hu* fails to establish a *prima facie* case of obviousness with respect to Applicant's dependent claims 24 and 25.

Accordingly, Applicant respectfully requests that the rejection of dependent claims 24 and 25 be withdrawn.

CONCLUSION

For at least the reasons set forth above, Applicant respectfully submits that all pending claims 1 - 17, 19 - 22, 24 and 25 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,



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